**NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PER. \_\_\_\_\_\_**

**BIO-COM –CHAPTERS 4 & 5 – STUDY GUIDE**

1. The average year-after-year conditions of temperature and precipitation in a particular

region are referred to as the region’s

2. What factors contribute to Earth’s climate?

3. The natural event that helps keep the earth warm and maintain temperatures is \_\_\_\_.

4. What does the unequal heating of Earth’s surface cause?

5. Why does Earth have three main climate zones?

6. An organism’s role in the environment is its \_\_\_\_\_\_.

7. Several species of warblers can live in the same spruce tree ONLY because they \_\_\_.

8. An interaction in which one organism captures and feeds on another organism is called \_\_\_\_.

9. Different species can share the same habitat, but competition among them is reduced if they\_\_\_\_.

10. When too many of the same species occupies a certain area \_\_\_ will result.

11. The place in an ecosystem where an organism lives is the organism’s \_\_\_.

12. A symbiotic relationship in which both species benefit is \_\_\_\_\_.

13. The symbiotic relationship between a flower and the insect that feeds on its nectar is an example of \_\_\_.

14. The changes that occurs in an ecosystem over time is called \_\_\_.

15. Primary succession happens after \_\_\_\_\_.

16. What factors that play a role in population growth rate?

17. How do you calculate population density?

18. The movement of organisms into a given area from another area is called \_\_\_\_.

19. When organisms move out of the population, this is known as \_\_\_\_\_.

20. If a population grows larger than the carrying capacity of the environment, the \_\_\_.

21. What is carrying capacity?

22. Identify the 3 symbiotic relationships and give an example of each.

23. What are three main characteristics of a population?

24. What is a pioneer species?

|  |  |  |  |
| --- | --- | --- | --- |
| **Average Rainfall and Temperature of Earth’s Biomes** | | | |
| **Biome** | **Average Yearly Rainfall** | **Average Temperature** | **Climate Zone** |
| Tropical rain forest | 400 cm | Daytime: 34ºC  Nighttime: 20ºC | Tropical |
| Tropical dry forest | 250–300 cm | Dry season: 32ºC  Wet season: 20ºC | Tropical |
| Temperate forest | 75–125 cm | Summer: 28ºC  Winter: 6ºC | Mostly temperate |
| Boreal forest | 35–75 cm | Summer: 14ºC  Winter: -10ºC | Mostly temperate |
| Tropical savanna | 1 50 cm | Dry season: 34ºC  Wet season: 16ºC | Mostly tropical |
| Desert | Less than 25 cm | Summer: 38ºC  Winter: 7ºC | Tropical and temperate |
| Temperate grassland | 25–75 cm | Summer: 30ºC  Winter: 0ºC | Temperate |
| Tropical woodland  and scrubland | Less than 50 cm | Summer: 20ºC  Winter: 10ºC | Temperate |
| Tundra | 30–50 cm | Summer: 12ºC  Winter: -26ºC | Temperate and polar |

**Figure 4–2**

25. Compare the average daytime temperature of the tropical rain forest with the average

summer temperature of the tundra.

26. What is the highest daytime temperature shown in Figure 4–2?

27. Which climate zone listed in Figure 4–2 includes the most biome?

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Population Statistics in the United States From 1900 to 1990*** | | | | | | | | | | |
|  | **1900** | **1910** | **1920** | **1930** | **1940** | **1950** | **1960** | **1970** | **1980** | **1990** |
| Live births per thousand | 32.3 | 30.1 | 27.7 | 21.3 | 19.4 | 24.1 | 23.7 | 18.4 | 15.9 | 15.6 |
| Deaths per thousand | 17.1 | 14.7 | 13.0 | 11.3 | 10.8 | 9.6 | 9.5 | 9.5 | 8.8 | 8.7 |
| Number of births over deaths | 15.2 | 15.4 | 14.7 | 10.0 | 8.6 | 14.5 | 14.2 | 8.9 | 7.1 | 6.9 |
| Life expectancy at birth (yrs) | 47.3 | 50.0 | 54.1 | 59.7 | 62.9 | 68.2 | 69.7 | 70.8 | 73.7 | 74.8 |
| Increase in longevity  since 1900 (yrs) |  | 2.7 | 6.8 | 12.4 | 15.6 | 20.9 | 22.4 | 23.5 | 26.4 | 27.5 |

**Figure 5–1**

28. Which year was the number of births at its lowest point, according to Figure 5–1?

29. Does the number of deaths since 1950 increase or decrease?

30. How does life expentancy change from 1900-1990?